

10073699-024102

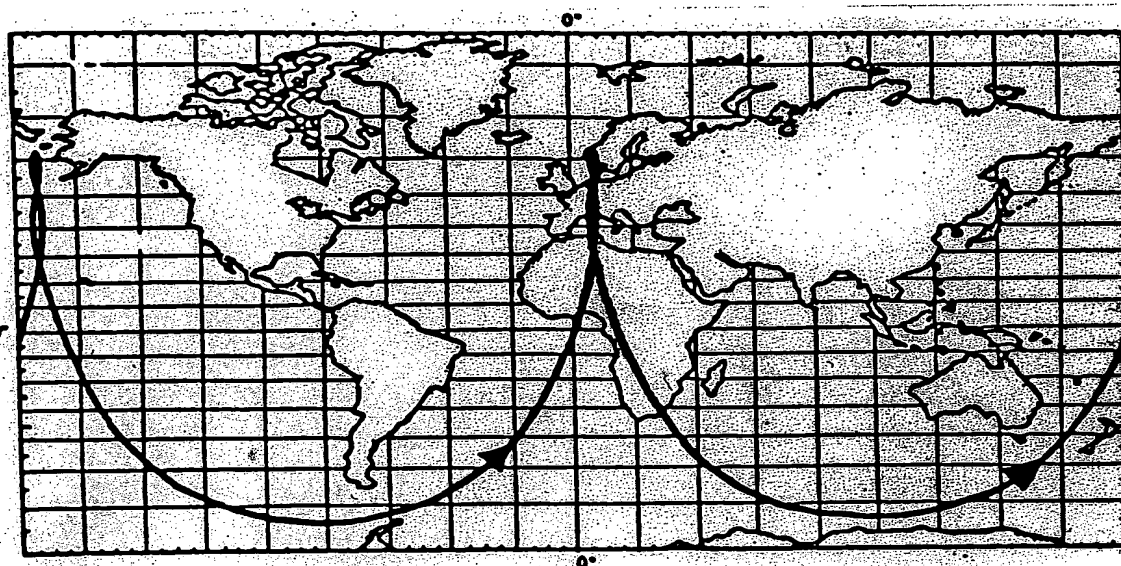


FIG. 4A
(PRIOR
ART)

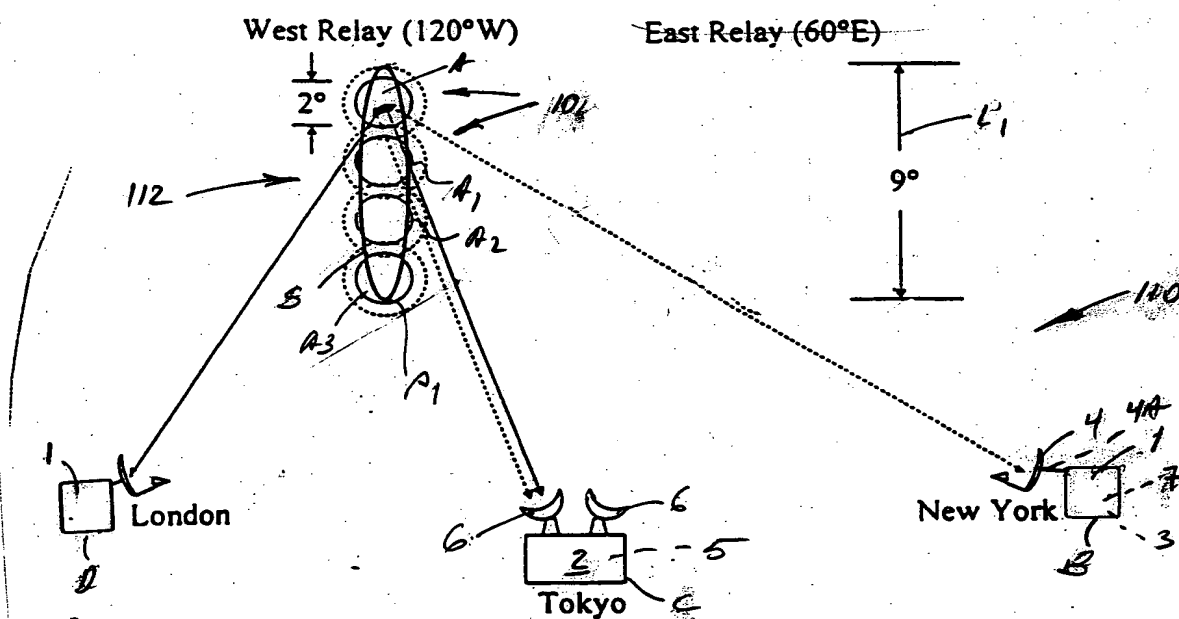
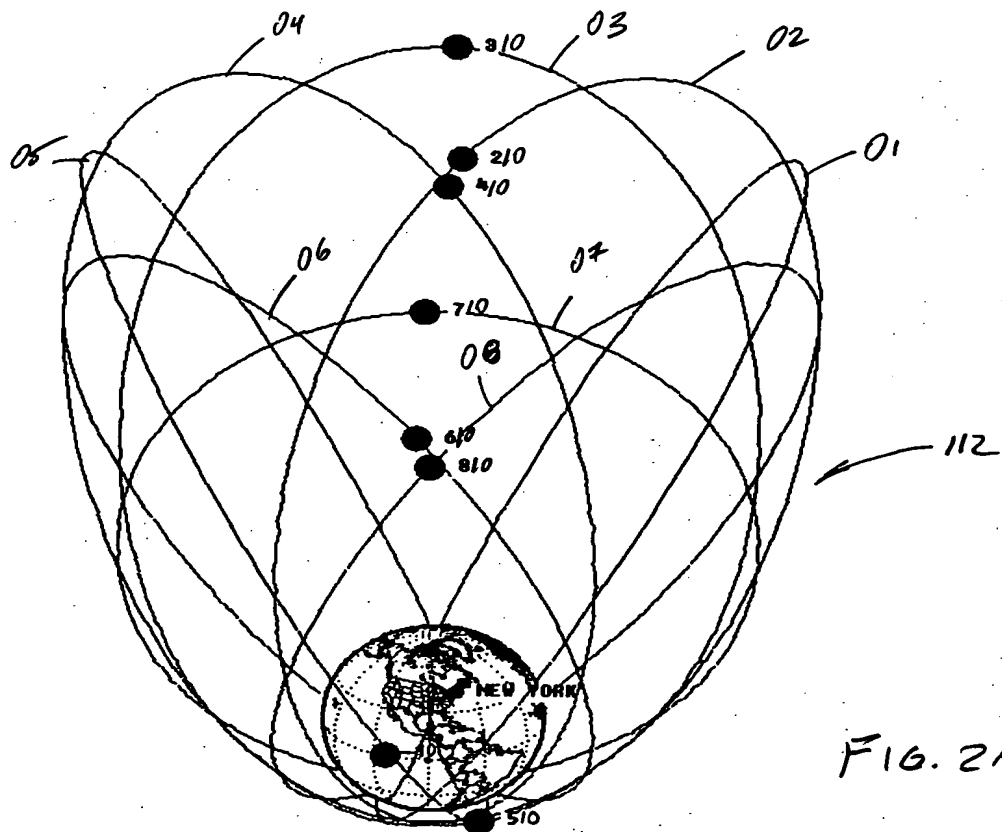
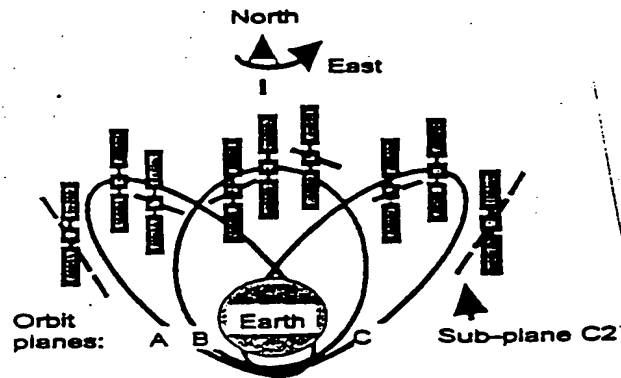


FIG. 1

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FIG. 2

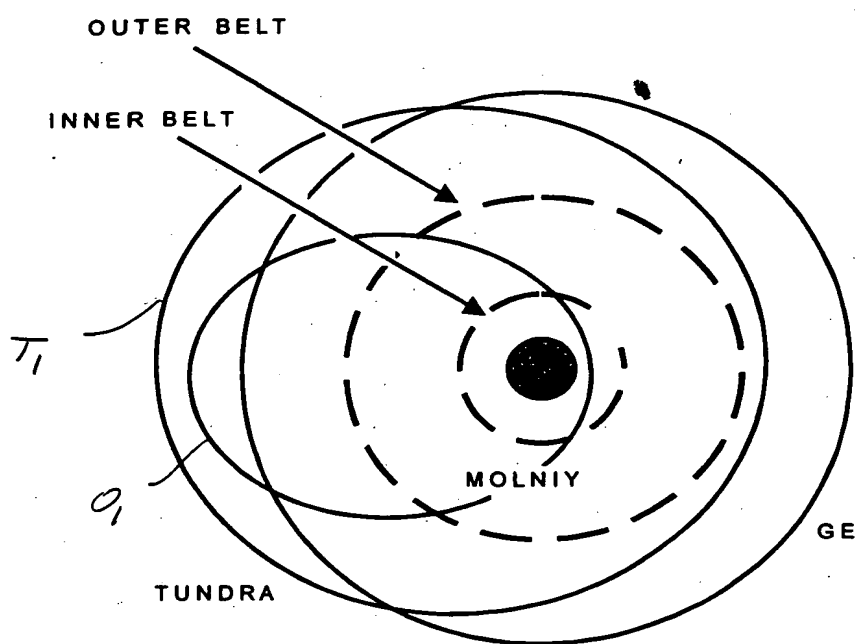


8 SATELLITES IN MOLNIYA ORBITS

FIG. 2A

Fig. 3

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INNER BELT MAXIMUM INTENSITY AT ABOUT 10000 KM RADIU
OUTER BELT MAXIMUM INTENSITY AT ABOUT 27000 KM RADIU

TUNDRA ORBIT PERIGEE IS AT 31700 KM RADIUS

FIG. 4
(PRIOR ART)

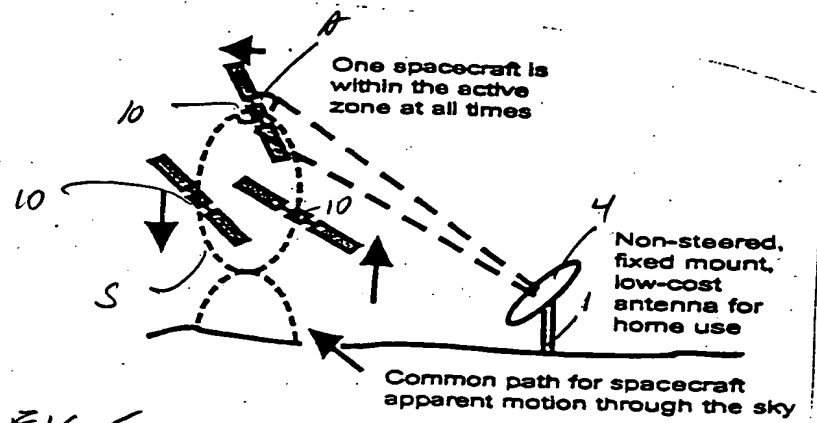


FIG. 5A

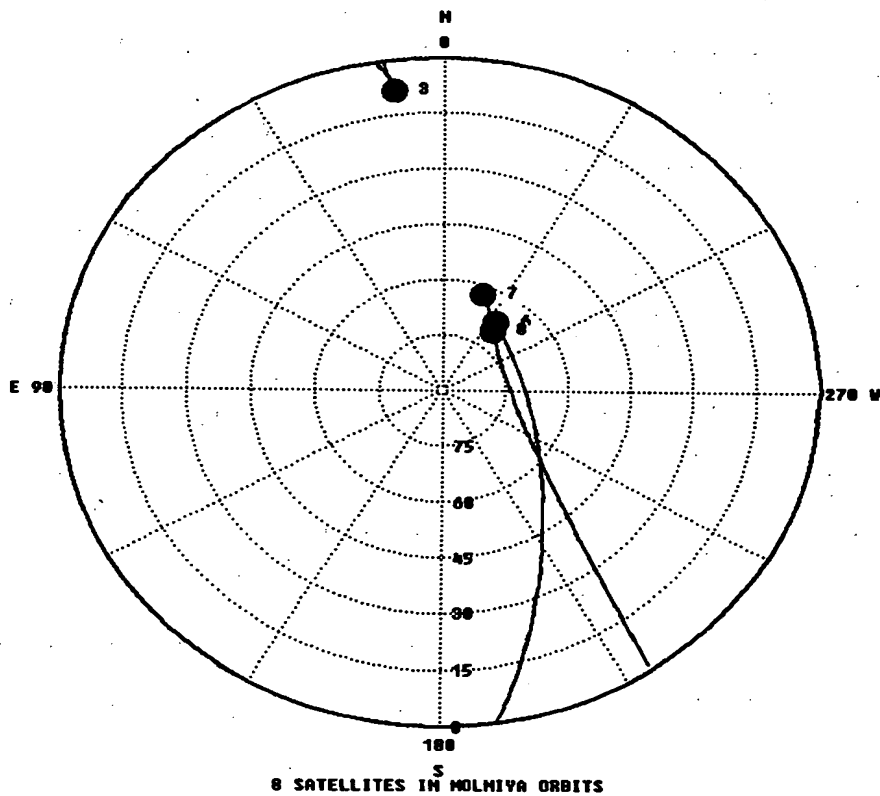


FIG. 5B

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24-HOUR TUNDRA ORBIT WITH INCLINATION 55 DEG., ECCENTRICITY 0.268
ARGUMENT OF PERIGEE HISTORY - LUNI-SOLAR AND OBLATENESS PERTURBATIONS

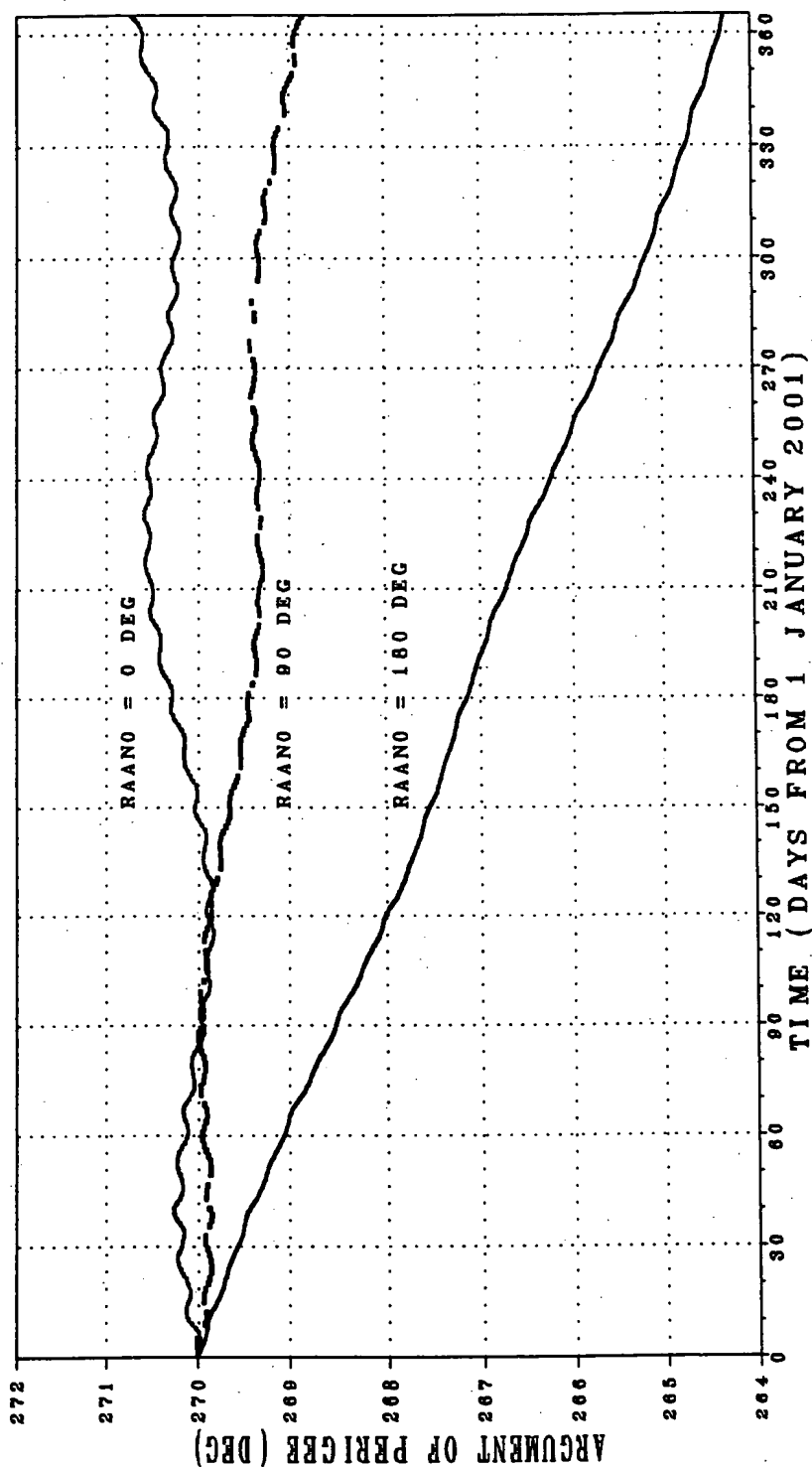
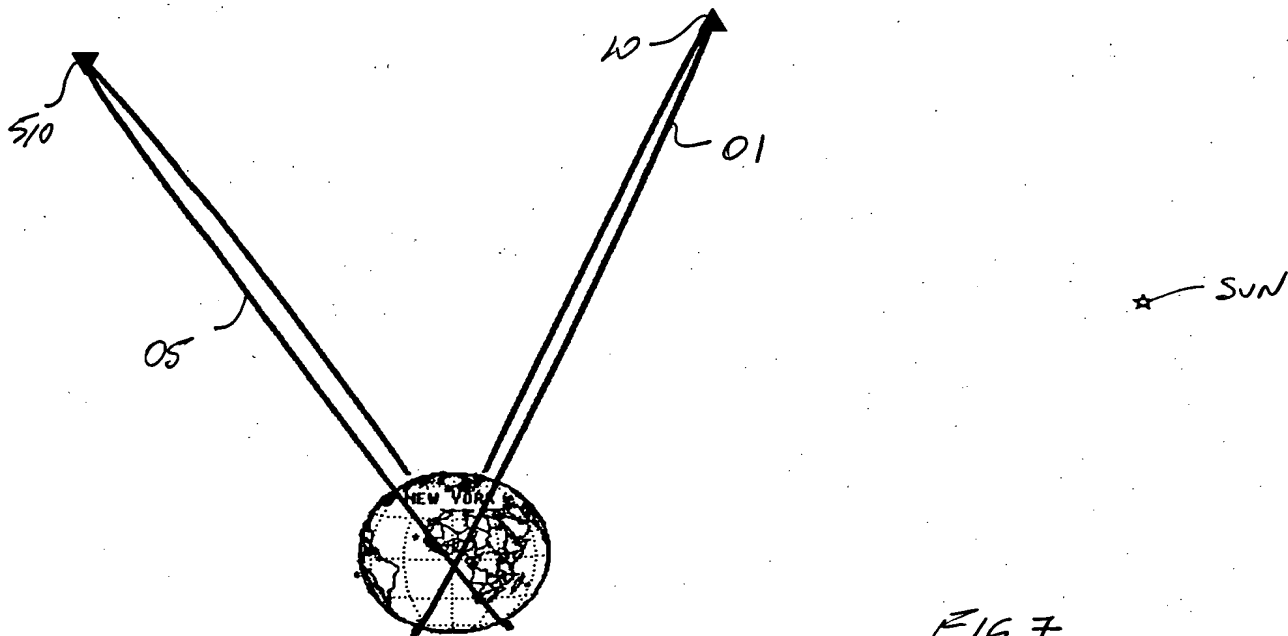


FIG. 6

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2 LAUNCHES INTO 2 MOLNIYA ORBIT PLANES

FIG. 7

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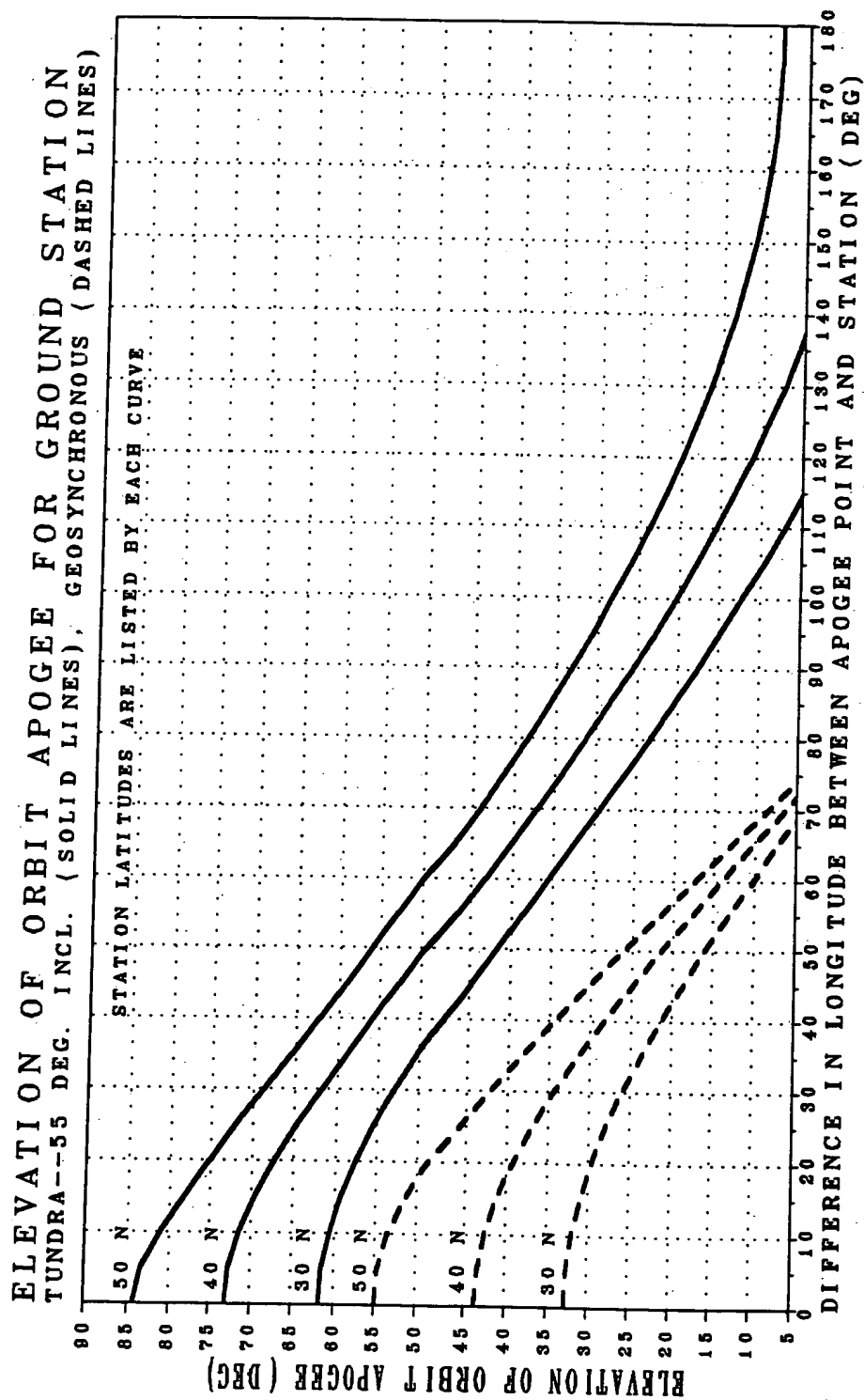


FIG. 8

10073699-021102

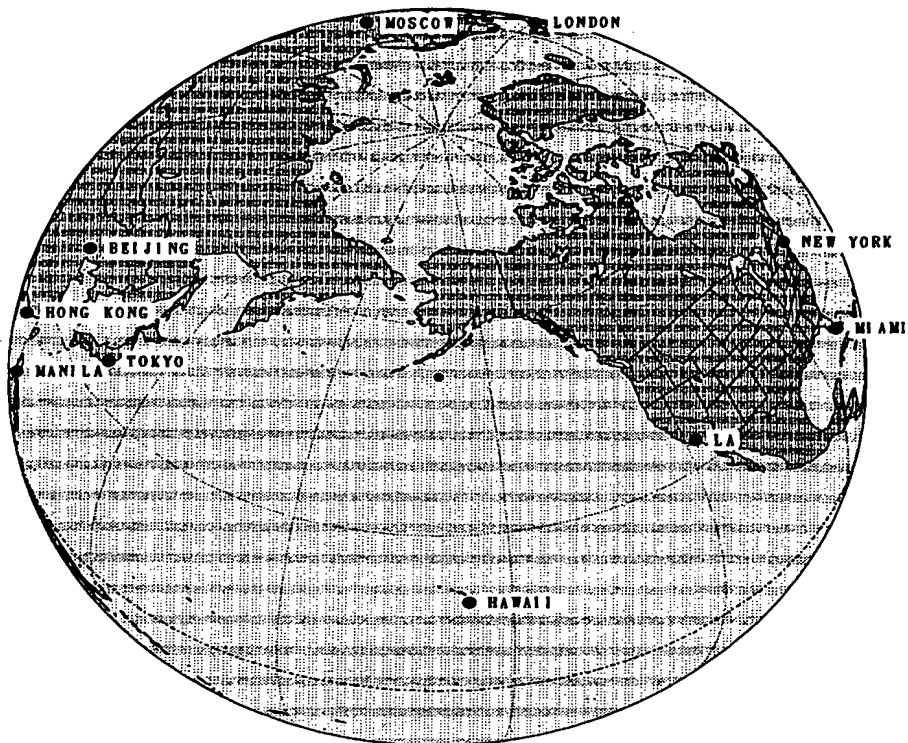


FIG. 9

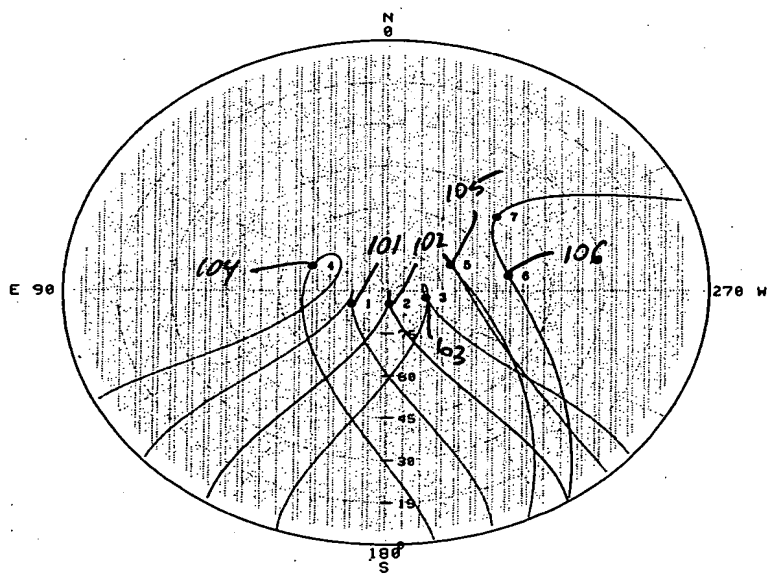


FIG. 10

SPACECRAFT APPARENT MOTION AS VIEWED FROM A GROUND SITE
 ANTENNA AIM POINT: OPTIMIZED DIRECTION TO MINIMIZE SPACECRAFT MOTION

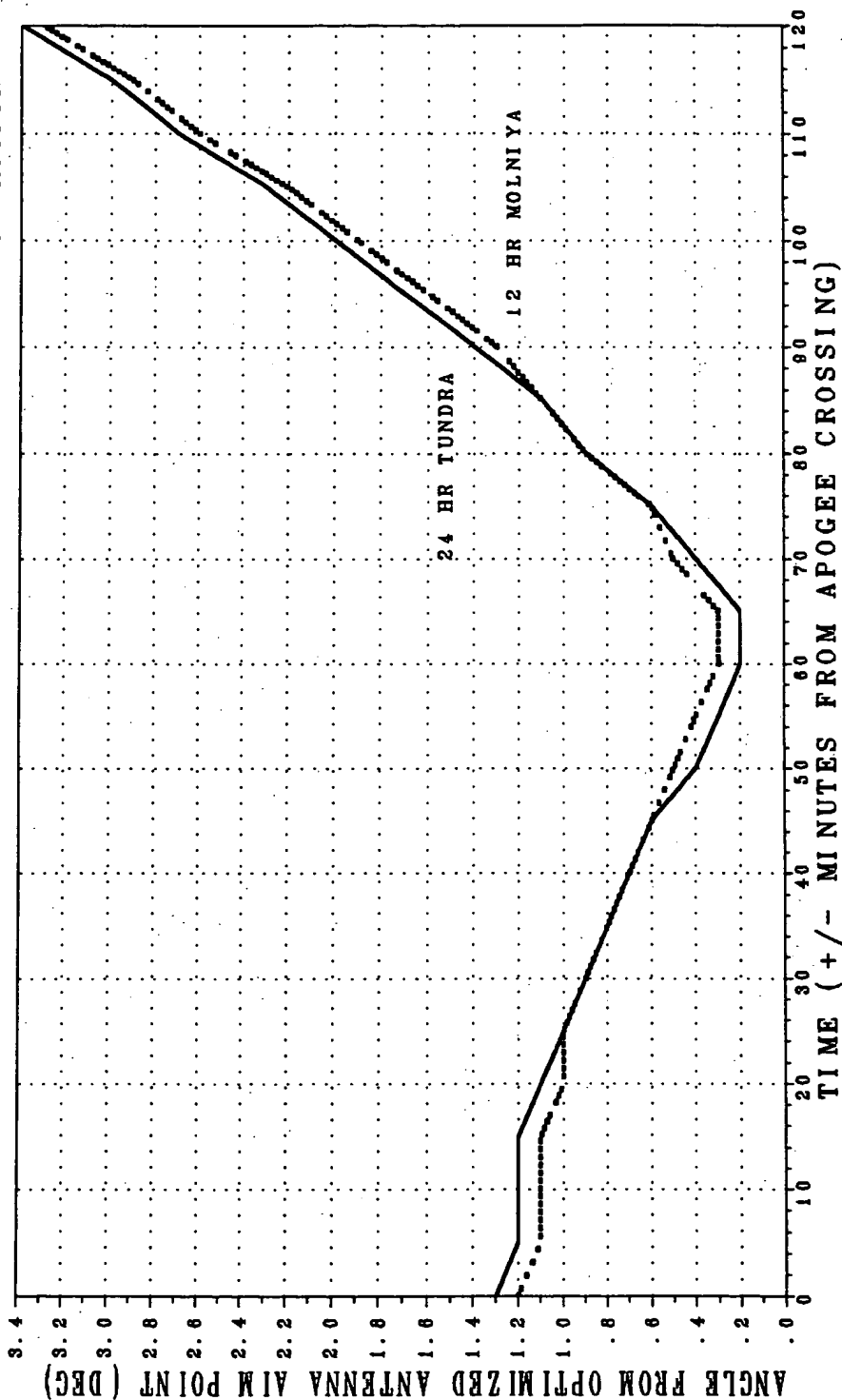


FIG. 11

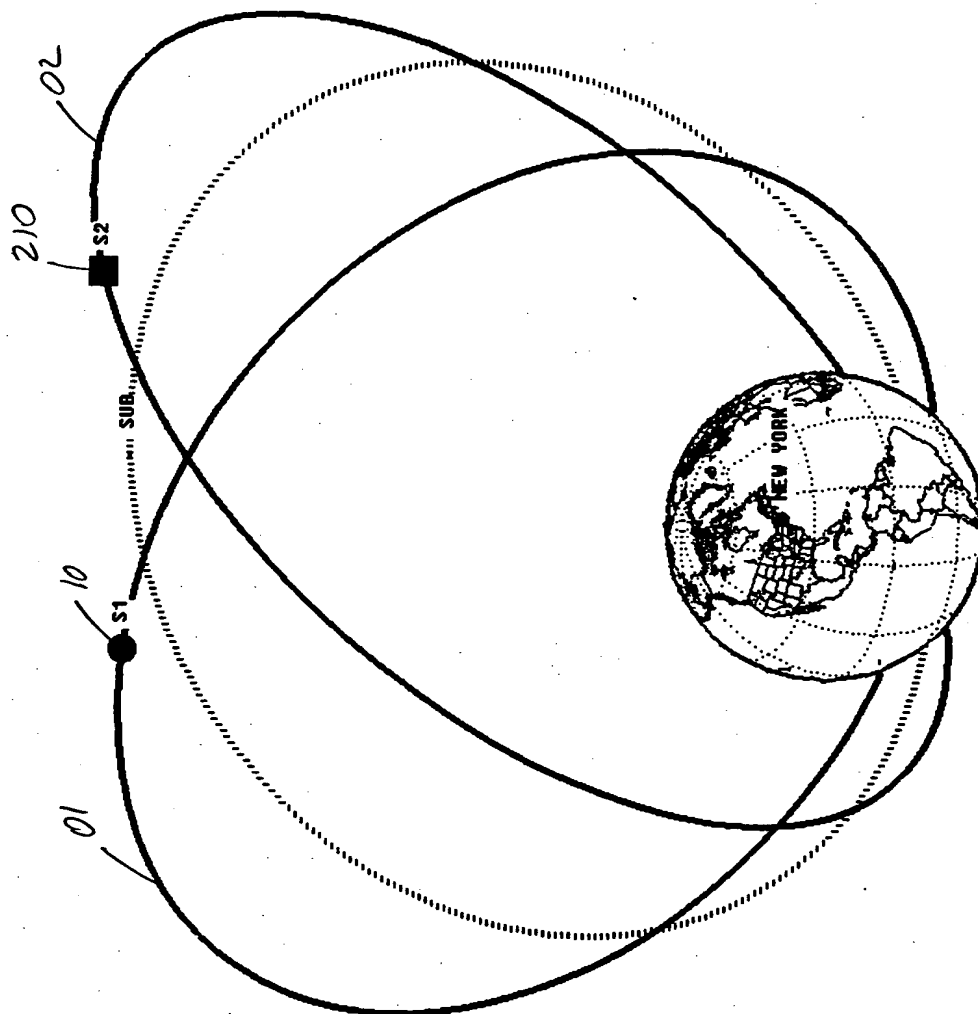


FIG. 12

2-SATELLITE LAUNCH AND MANEUVERING INTO 2 MOLNIYA ORBIT PLANES

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VELOCITY INCREMENT FROM TRANSFER ORBIT TO TUNDRA ORBIT
INCLUDING PLANE CHANGE TO CONFIGURE ORBITAL PLANES

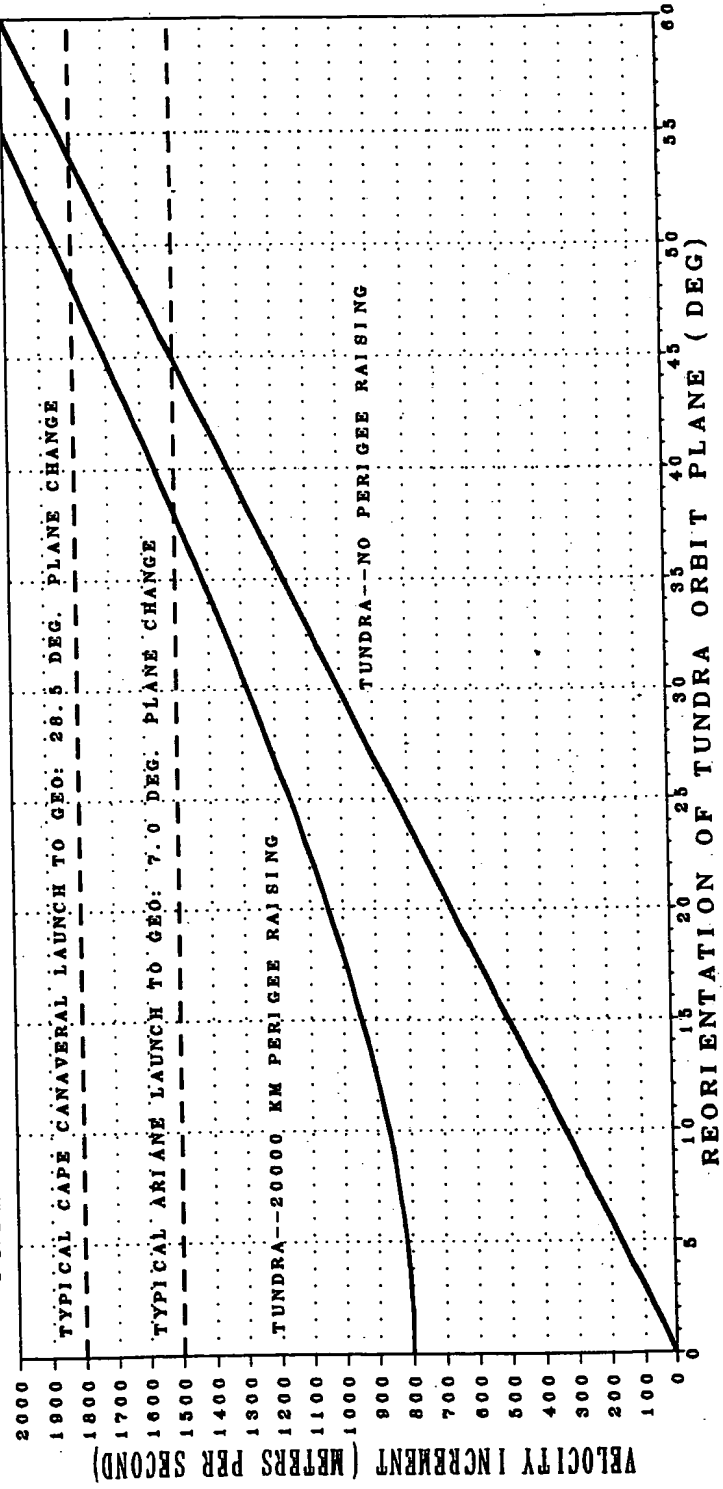


FIG. 13

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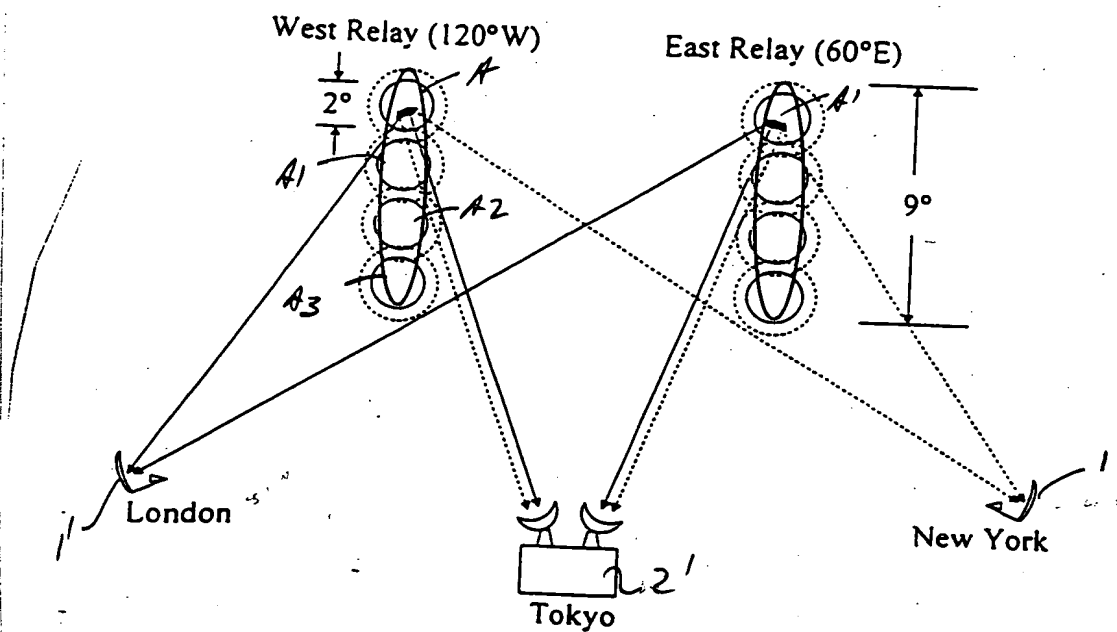


FIG. 14